Data Sheet

OAP180 Rugged Access Point

Easiest-to-deploy, centrally managed rugged access point for extending enterprise-class Wi-Fi connectivity to outdoor and challenging indoor environments

OAP180

Key Product Benefits:

- Easiest-to-deploy, enterprise class outdoor AP eliminates RF channel planning, significantly reducing costs
- Compact, rugged enclosure designed for outdoor use or in harsh indoor environments with exposure to extreme heat, cold, and/or rain
- Multi-layered security options allow multiple applications and user groups
- Centralized management helps lower operational expenses
- Dual radios enable simultaneous support of 802.11a and 802.11b/g clients
- Supports and works in all wireless mode when deployed as a Mesh access point

Dual-radio Access Point for Enterprise Networks

The Meru OAP180 Rugged Access Point delivers secure, high performance Wi-Fi connectivity to extend enterprise deployments to outdoor locations like campuses, parking lots, and pole tops; or harsh indoor environments including breweries, food processing plants or warehouses.

The OAP180 is a part of the Meru WLAN solution, which consists of coordinated Meru access points (APs) at the edge and centralized Meru controllers for management, security, and coordination for over-the-air reliability and Quality of Service (QoS). The Meru OAP180 provides best-in-class security, Voice over WLAN (VoWLAN) support, and reliability essential for enterprise-class Wi-Fi connectivity.

For customers planning new outdoor installations or adding capacity and coverage to existing WLANs in harsh environments, the OAP180 is the easiest-to-deploy AP in its class. Like other Meru APs, the OAP180 is a plug-and-play device that needs no configuration and no complex RF channel planning. Centralized configuration with Meru controllers and RF coordination provided by Meru Air Traffic Control™ technology eliminates these costly installation steps.

Zero-Configuration Design Streamlines Installation and Reduces Costs

Installing a new wireless device outdoors can be expensive due to the high labor costs associated with configuring the network APs. The OAP180, along with the centralized Meru WLAN architecture, is designed to solve this problem. Because the OAP180 requires zero configuration, installation is a simple plug-and-play procedure, which greatly reduces time and costs. Additional Meru OAP180 configuration benefits include:

- Wi-Fi Alliance Certified™ for WPA2
- Automatic AP discovery and configuration
- No channel planning required with single channel installations
- Intelligent load balancing of clients
- No need to extend VLAN trunks to the edge—done centrally at the controller in the distribution layer or core layer

Multi-Layered Security Approach Offers Greater Network Protection

To help deliver greater security for the WLAN, Meru APs go beyond the basic over-the-air protections by providing multi-layered security policies.

- Local and RADIUS MAC Filtering
- WPA2, WPA, 802.1x, and WEP
- No security information contained within access point
- Operates only with Meru controllers
- Multiple static or automatic security zones with individual security policies help ensure separation of different user groups or dynamic VLAN assignments per user based on RADIUS credentials — includes guest access captive portal.

Centralized RF Management Lowers Operational Costs

Post-installation maintenance and help-desk costs are some of the challenges for IT organizations. Meru reduces management complexity with its E(z)RF™ Application Suite. Meru E(z)RF is a centralized management tool that enables network administrators to remotely manage Meru APs and controllers.

- Centralized dashboard to monitor and troubleshoot the entire WLAN — including OAP180s
- Graphical view of performance and coverage parameters to better visualize the RF footprint of each OAP180
- Central template-based configuration of all Meru controllers and OAP180 Rugged Access Points

High-performance Access Point Provides Investment Protection

As enterprise applications and user density continue to increase, and 802.11a/b/g clients are now commonplace in laptops, the Meru OAP180 ensures that your network supports the full breadth of WLAN clients.

- One 802.11a and one 802.11b/g radio
- Simultaneous support for 802.11a, 802.11b, and 802.11g clients

About Meru Networks

Meru Networks develops and markets wireless infrastructure solutions that enable the All-Wireless Enterprise. Its industry-leading innovations deliver pervasive, wireless service fidelity for business-critical applications to major Fortune 500 enterprises, universities, healthcare organizations and local, state and federal government agencies. Meru's award-winning Air Traffic Control technology brings the benefits of the cellular world to the wireless LAN environment, and its WLAN System is the only solution on the market that delivers predictable bandwidth and over-the-air quality of service with the reliability, scalability and security necessary to deliver converged voice and data services over a single WLAN infrastructure.

OAP180 Rugged Access Point

Technical Specifications

For more information about the Meru OAP180, visit: www.merunetworks.com

Or email your questions to: info@merunetworks.com

SECURITY

MAC Filtering	Local MAC database; RADIUS MAC authentication
Layer 2 Security	802.11 Security: WEP-64, WEP-128, 802.1x with PEAP, WPA, WPA2
	Dynamic VLAN assignment on a per-client basis
Encryption	WEP keys of 40 bits, 64 bits, and 128 bits (in hardware)
	TKIP (in hardware)
	AES (in hardware)
RADIUS Interoperability	Microsoft IAS, Steel-Belted RADIUS, FreeRADIUS, Cisco ACS
Layer 3 Security	VPN Passthrough
	Captive Portal for guest access

MANAGEMENT

Administrative Access	SSH, Telnet, GUI – through controller
Configuration	Automatically downloaded from Controller
	All configuration changes performed on the controller
Troubleshooting and	Advanced troubleshooting through controller
Local Access	Historical reports and alerts through E(z)RF
Remote/Central Management	E(z)RF Management Station for: Monitoring, Alerts, Reports, RF Visualization, RF Locationing
SNMP Support	SNMP v1/v2c Agent & Monitoring through controller MIBs
Remote Logging	Syslog v1 and v2—failure alerts and change notifications through controller and E(z)RF
Software Upgrade	Automatic software upgrades, originated by controller

WIRELESS SPECIFICATIONS

Wireless Interfaces	Two radios—IEEE 802.11a and IEEE 802.11b/g
Power Management	Optimal power control in 1 dBm increments
Antenna	4 N-Type external antenna connectors
Frame Size	Peak frame size of <2250 bytes
	Fragmentation and Reassembly of 802.11/Ethernet frames supported
Client Support	All Wi-Fi compatible clients
	Power Save clients
	Clients that perform active and passive scanning

802.11a

Frequency Band	5.180 – 5.240 GHz; 4 channels (36, 40, 44, 48)
	5.260 – 5.320 GHz; 4 channels (52, 56, 60, 64)
	5.745 – 5.825 GHz; 5 channels (149, 153, 157, 161, and 165)
Operating Channels	Configurable based on country regulations
Data Rates	54, 48, 36, 24, 18, 12, 9 and 6 Mbps with automatic rate adaptation
Transmit Power	~ +18 dBm (65 mW) nominal; antenna type and gain are country regulations dependent
Receive Sensitivity	-71 dBm at 54 Mbps, -89 dBm at 6 Mbps

802.11b/g

Frequency Band	Hardware supports 2.40-2.50 GHz: 2.4 GHz - 2.4835 GHz (US, Europe) 2.4 GHz - 2.497 GHz (Japan only)
Operating Channels	1-11 US/Canada, 1-13 Europe, and 1-14 (Japan) 3 non-overlapping channels
Transmit Power	~+20 dBm (100 mW) nominal, country regulations dependent
802.11b Data Rates	11, 5.5, 2 and 1 Mbps with automatic rate adaptation
802.11g Data Rates	54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps
802.11b Receiver Sensitivity	-90 dBm at 11 Mbps, -96 dBm at 1 Mbps
802.11g Receiver Sensitivity	-73 dBm at 54 Mbps, -91 dBm at 6 Mbps

NETWORK SPECIFICATIONS

Forwarding	IP Tunnel to Controller in Coordinated Mode 802.3/802.11 bridging in Bridge Mode
Network Interfaces	1 Auto-sensing 10/100 Base-TX Ethernet (RJ-45)
Addressing	DHCP or Manual Assignment
VLAN	802.1Q Tagging Support through controller

PHYSICAL SPECIFICATIONS

Dimensions (H x W x D)	195 x 190 x 74 mm 9 / 7.68 x 7.48 x 2.91"
Weight	3.4 lbs / 1.54 Kgs
Power Type	Power over Ethernet, 60 W High Power; Power Injector provided
Maximum Power Draw	40W
Environmental	Operating Temperature: ETS 300 019-2-4 Class 4.1E modified -40° F to 140° F/-40° C to 60° C Vibration class 4M3
	Transportation Environment: ETS 300 019-2-2 Class 2.3 Public Transportation
	Storage Temperature: Storage @ -67° F to 176° F/-55° C to 80° C, non condensing @ 41° F to 158° F/5° C to 70° C Storage Environment Shock: IEC 68-2-29
	Drop: IEC 68-2-32
	Humidity: Max 95%
	Wind (Operational):100 MPH; Wind (Survival):150 MPH
	Lightning: The unit should withstand a +4KV of Input surge, 1.2µsec rise/fall time, 50 µsec duration, every 10 seconds, for both RF and lF ports
Indicators	4 LEDs for monitoring power, Ethernet activity, 802.11a activity, and 802.11b/g activity
Warranty	Hardware: 1 year
	Software: 90 days
	7 x 24 x 365 Service options available
Enclosure	Gasketed IP65 / NEMA 4 enclosure with sealed connectors
	Wall / post mounting bracket
	Sealed wall and post N connectors for external antennas
	Sealed multi-pole connectors Ethernet/POE and console RF Interfaces
	2 x 2.4 Ghz N-Type female antenna interface
	2 x 5 Ghz N-Type female antenna interface
Physical Interfaces	1 10/100Base-T/TX compatible with IEEE802.3
	4 N-Type connectors for external antennas

REGULATORY

Radio	FCC Part 15
	Canada RSS210
	EN 300 328 V1.6.1 (11/2004)
	EN 301 893 V1.3.1 (08/2005)
	Japan Technical Regulations
EMC	FCC Part 15
	EN 301 489-17 V1.2.1 (08/2002)
	Japan VCCI
Safety	cUL 60950-1 First Edition
	IEC/EN 60950-1 First Edition with national deviations
	UL 50; Enclosures for Electrical Equipment

Meru Networks
Corporate Headquarters
894 Ross Drive
Sunnyvale, CA 94089 USA
P 408.215.5300
F 408.215.5301

Copyright © 2009 Meru Networks, Inc. All rights reserved worldwide. No part of this document may be reproduced by any means nor translated to any electronic medium without the written consent of Meru Networks, Inc. Specifications are subject to change without notice. Information contained in this document is believed to be accurate and reliable, however, Meru Networks, Inc. assumes no responsibility for its use, Meru Networks is a registered trademark of Meru Networks, Inc. in the U.S. and worldwide. All other trademarks mentioned in this document are the property of their respective owners.

DS_OAP_0209